D-Link™ DES-1226G

Web-Smart 24-Port 10/100Mbps+2-Port Combo 10/100/1000Mbps Copper/SFP(Mini GBIC) Gigabit Switch

Manual

First Edition

D-Link®

Building Networks for People

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1. Package Contents

- One 24-Port 10/100Mbps+2-Port Combo 10/100/1000Mbps Copper/SFP(Mini GBIC) Gigabit Smart Switch
- One AC power cord
- Four rubber feet to be used for shock cushioning
- Screws and two mounting brackets
- Quick Installation Guide
- CD-Rom with Web Management Utility and Manual

If any of the above items are missing, please contact your reseller.

2. Introduction

Congratulations on your purchase of the DES-1226G 24-Port 10/100Mbps+2-Port combo 10/100/1000Mbps Copper/SFP(Mini GBIC) Gigabit Smart Switch. This device integrates 1000Mbps Gigabit Ethernet, 100Mbps Fast Ethernet, and 10Mbps Ethernet network capabilities into one cost-effective solution.

This manual discusses how to install your DES-1226G One 24-Port 10/100Mbps +2-Port combo 10/100/1000Mbps Copper/SFP(Mini GBIC) Gigabit Smart Switch.

In this manual, the term "**Switch**" (first letter upper case) refers to your DES-1226G 24-Port 10/100Mbps+2-Port combo 10/100/1000Mbps Copper/SFP(Mini GBIC) Gigabit Smart Switch, and "**switch**" (first letter lower case) refers to other Ethernet switches.
This chapter describes the features of the Switch and some background information about Ethernet/ Fast Ethernet/ Gigabit Ethernet switching technology.

Fast Ethernet Technology

Ethernet, along with its speedier counterpart Fast Ethernet, is the most popular networking standard in use today. 100Base-T Fast Ethernet is an extension of the 10Base-T Ethernet standard, designed to raise the data transmission capacity of 10Base-T from 10Mbits/sec to 100Mbits/sec. An important technology incorporated by 100Base-T is its use of the Carrier Sense Multiple Access with Collision Detection (CSMA/CD) protocol, which is the same protocol that 10Base-T uses, because of its ability to work with several different types of cable, including basic twisted-pair wiring. Both of these features play an important role in network considerations, and they make 100Base-T an attractive migration path for those networks based on 10Base-T. Since the 100Mbps Fast Ethernet is compatible with all other 10Mbps Ethernet environments, it provides a straightforward upgrade and takes advantage of the existing investment in hardware, software, and personnel training.

Switching Technology

Switching is a cost-effective way of increasing the total network capacity available to users on a LAN. If an Ethernet network begins to display symptoms of congestion, low throughput, slow response times, and high rates of collision, installing a switch to a network can preserve much or all of the existing network's cabling and workstation interface card infrastructure while still greatly enhancing the throughput for users. A switch is a viable solution even if demanding applications, such as multimedia production and video conferencing, are on the horizon. The most promising techniques, as well as the best return on investment, could well consist of installing the right mixture of Ethernet switches.

A switch increases capacity and decreases network loading by dividing a local area network into different LAN segments. Dividing a LAN into multiple segments is one of the most common ways of increasing available bandwidth. If segmented correctly, most network traffic will remain within a single segment, enjoying the full-line speed bandwidth of that segment.

Switches provide full-line speed and dedicated bandwidth for all connections. This is in contrast to hubs, which use the traditional shared networking topology, where the connected nodes contend for the same network bandwidth. When two switching nodes are communicating, they are connected with a dedicated channel between them, so there is no contention for network bandwidth with other nodes. As a result, the switch reduces considerably the likelihood of traffic congestion.

For Fast Ethernet networks, a switch is an effective way of eliminating the problem of chaining hubs beyond the "two-repeater limit." A switch can be used to split parts of the network into different collision domains, making it possible to expand your Fast Ethernet network beyond the 205-meter network diameter limit for 100BASE-TX networks. Switches supporting both traditional 10Mbps Ethernet and 100Mbps Fast Ethernet are also ideal for bridging between existing 10Mbps networks and new 100Mbps networks.

Switching LAN technology is a marked improvement over the previous generation of network hubs and bridges, which were characterized by higher latencies. Routers have also been used to segment local area networks, but the cost of a router, and the setup and maintenance required make routers relatively impractical. Today switches are an ideal solution to most kinds of local area network congestion problems.

VLAN (Virtual Local Area Network)

A VLAN is a group of end-stations that are not constrained by their physical location and can communicate as if a common broadcast domain, a LAN. The primary utility of using VLAN is to reduce latency and the need for routers, by using faster switching instead. Other VLAN utilities include:

- Security: Security is increased with the reduction of opportunity in eavesdropping on a broadcast network because data will be switched to only those confidential users within the VLAN.
- Cost Reduction: VLANs can be used to create multiple broadcast domains, thus eliminating the need of expensive routers.

Port-based (or port-group) VLAN is the common method of implementing a VLAN, and is the one supplied in the Switch.

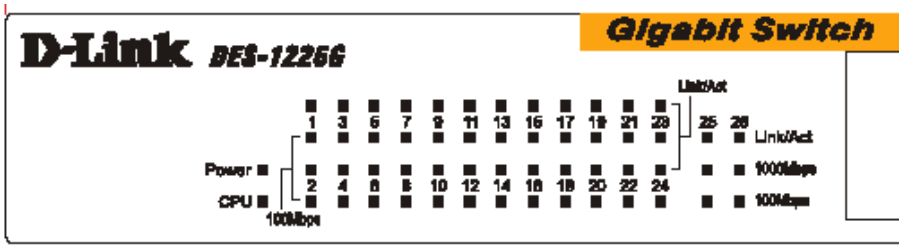
Features and Benefits

- (24) 10/100BASE-TX Fast Ethernet ports + (2) 1000BASE-T Gigabit Ethernet ports or (2) SFP(Mini GBIC) for 2 additional copper or fiber Gigabit connections
- Auto MDI/MDI-X support on each port
- Full-/half- duplex transfer mode for 10/100Mbps Fast Ethernet transmission
- Full-duplex transfer mode for Gigabit Ethernet transmission
- Wire-speed reception and transmission
- Store-and-Forward switching method
- Integrated address Look-Up Engine, supports 6K MAC addresses
- Supports 512K bytes RAM for data buffering
- Extensive front-panel diagnostic LEDs
- Broadcast storm protection
- IEEE 802.3x flow control for full-duplex
- Back pressure flow control for half-duplex
- Supports port-base VLAN
- Supports port-base QoS
- Supports Trunking
- Supports Port-mirroring
- Supports Port-setting for Speed/Disable, Flow control
- Easy configuration via Web Browser
- Easy setting via Web Management Utility
- Standard 19” Rack-mount size

LEDs

LED stands for **L**ight-**E**mitting **D**iode.

The front panel LEDs provides instant status feedback and simplifies monitoring and troubleshooting tasks.



LED indicators of the Switch

- Power

On	When the Power LED light is on, the Switch is receiving power.
Off	When the Power LED light is off, the power cord is improperly connected.

- CPU (Management Indicator)

Blinking	:	When the CPU is working, the System LED is blinking.
On/Off	:	The CPU is not working.

Ports 1-24 Status LEDs

- Link/Act

On	When the LED light is on, the respective port is connected to the 10/100Mbps Ethernet network.
Blinking	When the LED light is blinking, the port is transmitting or receiving data on the 10/100Mbps Ethernet network.
Off	No link.

- 100Mbps

On	When the LED light is on, the respective port is connected to a 100Mbps Ethernet network.
Off	When the LED light is off, the respective port is connected to a 10Mbps Ethernet network, or no link.

Ports 25 & 26 Status LEDs

- Link/Act

On	When the LED lights on, the respective port is connected to a 10/100/1000Mbps Ethernet network.
Blinking	When the LED is blinking, the respective port is transferring or receiving data on a 10/100/1000Mbps Ethernet network.
Off	No link.

- 1000Mbps

On	When the LED lights on, the respective port is connected to a Gigabit Ethernet network.
Off	The respective port is connected to a 10/100Mbps Ethernet network, or no link.

- 100Mbps

On	When the LED lights on, the respective port is connected to a 100Mbps Fast Ethernet network.
Off	When the LED light is off, the respective port is connected to a 10Mbps or Gigabit Ethernet network or there is no link.

Option Ports 25~26 SFP(Mini GBIC) Status LEDs

- Link/Act

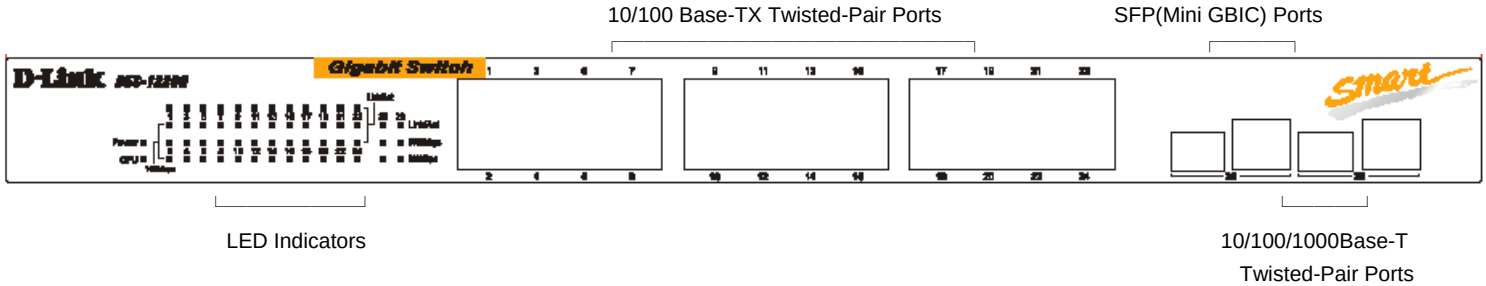
On	:	When the SFP(Mini GBIC) module is installed and connected to a network, the Link/ACT LED lights on.
Blinking	:	When the LED is blinking, the SFP(Mini GBIC) module is receiving data on a network.
Off	:	No link.

- 1000Mbps

On	:	When the 1000Mbps LED lights on, the respective port is connected to a 1000Mbps Gigabit Ethernet network.
Off	:	When the respective port is disconnected to the network.

Connections

Front Panel



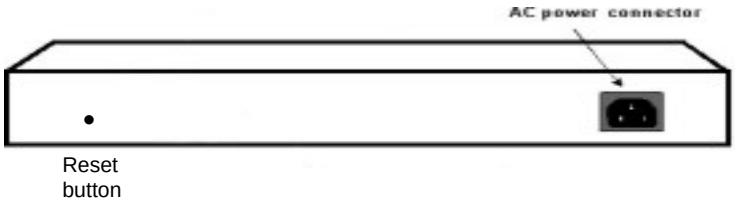
- 10/100BASE-TX Twisted-Pair Ports (Port1~24)

  These ports support network speeds of either 10Mbps or 100Mbps, and can operate in half- and full- duplex transfer modes. These ports also support automatic MDI/MDI-X crossover detection, giving true “plug and play” capability. Just plug the network cable directly into the hub; you can use either straight-through or crossover cable.

- 10/100/1000BASE-T Twisted Pair Ports (Port 25~26)
  The DES-1226G is equipped with two Gigabit twisted pair ports that are auto negotiable 10/100/1000Mbps and also support auto MDI/MDIX crossover detection. These two ports can operate in half- and full- duplex modes.
- SFP(Mini GBIC) Ports (Option Port 25~26)
  The Switch is equipped with two SFP(Mini GBIC) ports, supported optional 1000BASE-X SFP(Mini GBIC) module.

Note: When the port is set to "Forced Mode", the Auto MDI/MDIX will be disabled.

Rear Panel



- AC Power Connector
  This is a three-pronged connector that supports the power cord. Plug in the female connector of the provided power cord into this connector, and the male into a power outlet. Supported input voltages range from 100~240V AC at 50~60Hz.

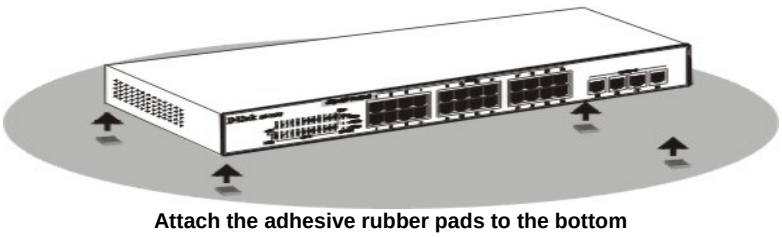
- Reset
  The Reset button is to reset all the settings back to the factory defaults.

Note: Be sure that you record the settings of your device, or else all settings will be erased when pressing the "Reset" button.

3. Installation

The site where you place the DES-1226G may greatly affect its performance. When installing, take the following into your consideration:

- Install the DES-1226G in a fairly cool and dry place. See the *Technical Specifications* for the acceptable temperature and humidity operating ranges.
- Install the DES-1226G in a site free from strong electromagnetic field generators (such as motors), vibration, dust, and direct exposure to sunlight.
- Leave at least 10cm (about 4 inches) of space at the front and rear of the Switch for ventilation.
- Install the DES-1226G on a sturdy, level surface that can support its weight, or in an EIA standard-size equipment rack.
- When installing the Switch on a level surface, attach the rubber feet to the bottom of each device. The rubber feet cushion the Switch and protect the Switch case from scratching.

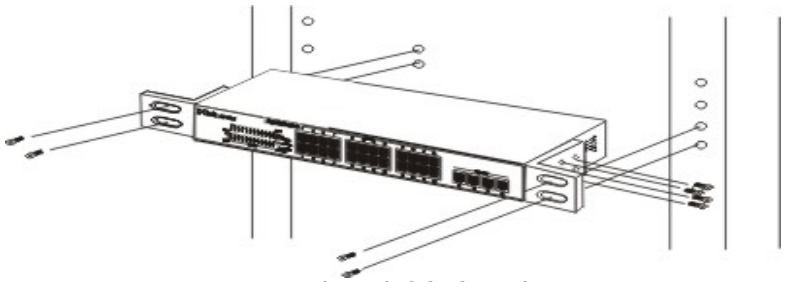


Attach the adhesive rubber pads to the bottom

Rack Mounting

The DES-1226G can be mounted in an EIA standard-size, 19-inch rack, which can be placed in a wiring closet with other equipment. Attach the mounting brackets to both sides of the Switch (one at each side), and secure them with the provided screws.

Use the screws provided. Then, use the screws provided with the equipment rack to mount the Switch in the rack.



Mount the Switch in the rack.

Connecting Network Cable

The DES-1226G supports 10/100/1000Mbps Gigabit Ethernet. It runs full-/half- duplex transfer mode for 10/100Mbps and full-duplex transfer mode for 1000Mbps. Each port on the DES-1226G supports Auto-MDI/MDI-X. Auto-MDI/MDI-X is a feature that eliminates the need for worrying about using either a standard or crossover cable—you can use either one—and allows any port to be an uplink port.

AC Power

The DES-1226G can be used with AC power supply 100~240V AC, 50~60 Hz. The power switch is located at the rear of the unit adjacent to the AC power connector and the system fan. The Switch's power supply will adjust to the local power source automatically and may be turned on without having any or all LAN segment cables connected.

4. Configuration

Through the Web browser you can configure Switch settings such as VLAN, Trunking, QoS… etc.
Using the Switch's Web Management Utility, you can easily discover all the D-Link Web-Smart Switches in your network, assign the IP Address, change the password, and upgrade new firmware.

Installing the Web Management Utility

The following gives instructions guiding you through the installations of the Web Management utility.

1. Insert the Utility CD in the CD-Rom Drive.
2. From the **Start** menu on the Windows desktop, choose **Run**.
3. In the **Run** dialog box, type D:\Web Management Utility\setup.exe (D:\ depends where your CD-Rom drive is located) and click **OK**.
4. Follow the on-screen instructions to install the utility.
5. Upon completion, go to **Program Files -> web_management_utility** and execute the Web Management utility. (Figure 1.)

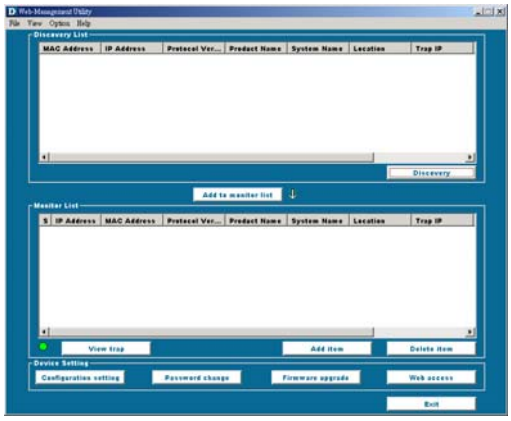


Figure 1. Web Management Utility

The Web Management Utility is divided into four parts, ***Discovery List***, ***Monitor List***, ***Device Setting***, and ***Toolbar function***. For detailed instruction, follow the section below.

Discovery List

This is the list where you can discover all the D-Link Web-Smart devices in the entire network

By clicking on the ***"Discovery"*** button, you can list all the Web-Smart devices in the discovery list.

Double click or press the ***"Add to monitor list"*** button to select a device from the Discovery List to the Monitor List.

System word definitions in the Discovery List:

- ***MAC Address:*** Shows the device MAC Address.
- ***IP Address:*** Shows the current IP address of the device.
- ***Protocol version:*** Shows the version of the Utility protocol.
- ***Product Name:*** Shows the device product name.
- ***System Name:*** Shows the appointed device system name.
- ***Location:*** Shows where the device is located.
- ***Trap IP:*** Shows the IP where the Trap is to be sent.
- ***Subnet Mask:*** Shows the Subnet Mask set of the device.
- ***Gateway:*** Shows the Gateway set of the device.

Monitor List

All the Web Smart Devices in the Monitor List can be monitored; you can also receive a trap and show the status of the device.

System word definitions in the Monitor List:

- ***S:*** Shows the system symbol of the Web-Smart device, represents that the device system is not alive.
- ***IP Address:*** Shows the current IP address of the device.
- ***MAC Address:*** Shows the device MAC Address.
- ***Protocol version:*** Shows the version of the Utility protocol.
- ***Product Name:*** Shows the device product name.
- ***System Name:*** Shows the appointed device system name.
- ***Location:*** Shows where the device is located.
- ***Trap IP:*** Shows the IP where the Trap is to be sent.
- ***Subnet Mask:*** Shows the Subnet Mask set of the device.
- ***Gateway:*** Shows the Gateway set of the device.

View Trap: The Trap function can receive the events that occur from the Web-Smart Switch in the Monitor List.

There is a light indicator behind the ***"View Trap"*** button. When the light is green, it indicates that no trap has been transmitted, and when it is red, it indicates that a new trap has been transmitted, reminding us to view the trap. (Figure 2)

Figure 2.

When the ***"View Trap"*** button is clicked, a Trap Information window will pop up, displaying trap information including the Symbol, Time, Device IP, and the Event occured. (Figure 3)

The symbol " " represents the trap signal; this symbol will disappear after you review and click on the event record.

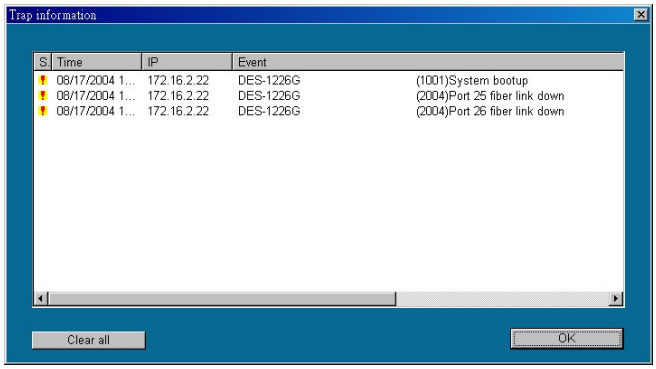


Figure 3.

Note: In order to receive Trap information, the Switch has to be configured with Trap IP and Trap Events in Web browser, available in the Trap Setting Menu (see Page 40 for details).

Add Item: To manually add a device to the Monitor List, enter the IP Address of the device that you want to monitor.

Delete Item: To delete the device in the Monitor List.

Device Setting

You can set the device by using the function key in the Device Setting Dialog box.

Configuration Setting: In Configuration Setting, you can set the IP Address, Subnet Mask, Gateway, Set Trap to (Trap IP Address), System name, and Location.

Select the device in the Discovery list or Monitor List and click the "Configuration Setting" button; the Configuration Setting window will appear as seen in Figure 4. After entering the data that you want to change, you must enter the password and press the "Set" button to process the data change immediately.

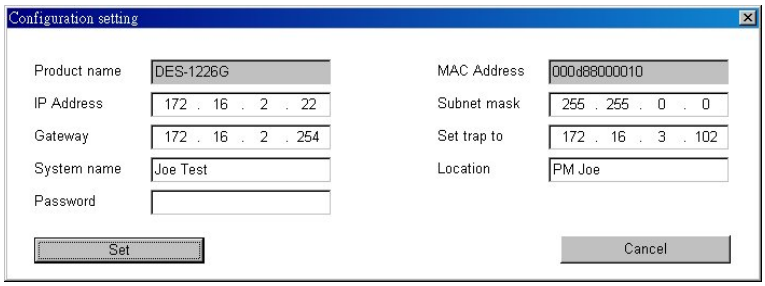


Figure 4. Configuration Setting

Password Change: You can use this when you need to change the password. Enter the required password in the dialog box and press the ***"Set"*** button to process the password change immediately.

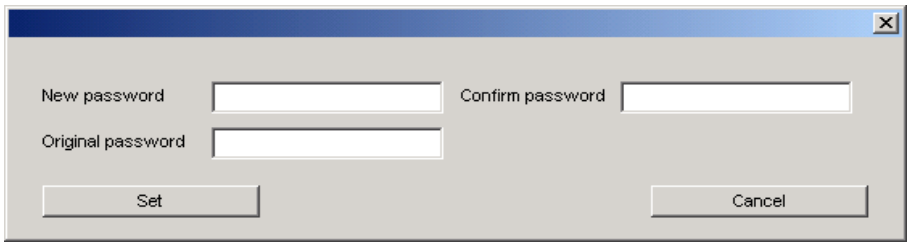


Figure 5. Password Change

Firmware Upgrade: When the device has a new function, there will be a new firmware to update the device. You can use this function to upgrade the firmware.

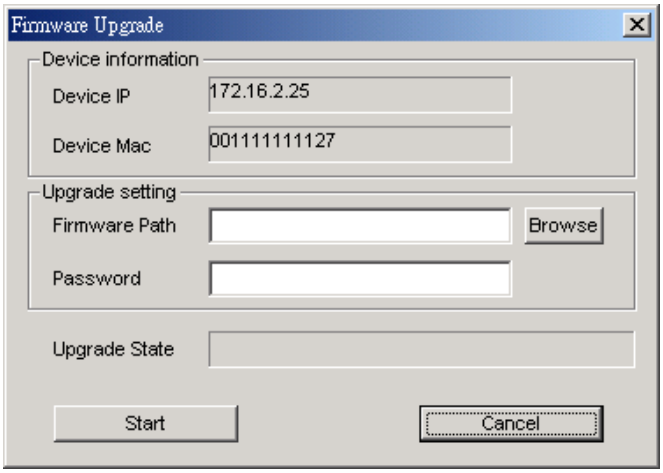


Figure 6.

Web Access: Double click the device in the Monitor List or select a device in the Monitor List and press the ***"Web Access"*** button to access the device in the Web browser.

Toolbar

The toolbar in the Web Management Utility have four main tabs: File, View, Options, and Help.

In the ***"File TAB"***, the options are Monitor Save, Monitor Save As, Monitor Load, and Exit.

Monitor Save: To record the setting of the Monitor List to the default. When you open the Web Management Utility next time, it will automatically load the default recorded setting.

Monitor Save As: To record the setting of the Monitor List in appointed filename and file path.

Monitor Load: To manually load the setting file of the Monitor List.

Exit: To exit the Web Management Utility.

In the ***"View TAB"***, the options are view log and clear log function, this function will help you to display trap settings.

View Log: To show the event of the Web Management Utility and the device.

Clear Log: To clear the log.

In the ***"Option TAB"***, there is the Refresh Time function. This function helps you to refresh the time of monitoring the device. Choose ***15 secs***, ***30 secs***, ***1 min***, ***2 min***, ***and 5 min*** to select the time of monitoring.

In the ***"Help TAB"***, there is the About function. It will show out the version of the Web Management Utility.

Configuring the Switch

The DES-1226G has a Web GUI interface for smart switch configuration. The Switch can be configured through the Web browser. A network administrator can manage, control, and monitor the Switch from the local LAN. This section indicates how to configure the Switch to enable its smart functions including:

- Port Setting (Speed/Disable, Duplex mode, Flow Control, and Port base QoS)
- Virtual LAN Group setting (VLAN)
- Trunking
- Port Mirroring
- System Setting
- Device status

Login

Before you configure this device, note that when the Web-Smart Switch is configured through an Ethernet connection, the manager PC must be set on same the **IP network**. For example, when the default network address of the default IP address of the Web Smart Switch is ***192.168.0.1***, then the manager PC should be set at 192.168.0.x (where x is a number between 2 and 254), and the default subnet mask is 255.255.255.0.

Open an Internet Explorer 5.0 or above Web browser.

Enter the IP address ***http://192.168.0.1*** (the factory-default IP address setting) in the address location.

Figure 7.

Through the Web Management Utility, you do not need to remember the IP Address; select the device shown in the Monitor List of the Web Management Utility to settle the device on the Web browser.

When the following dialog page appears, enter the default password ***"admin"*** and press Login to enter the main configuration window.

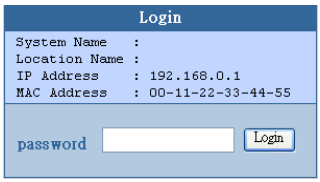


Figure 8.

After entering the password, the main page appears and the screen will display the device status.

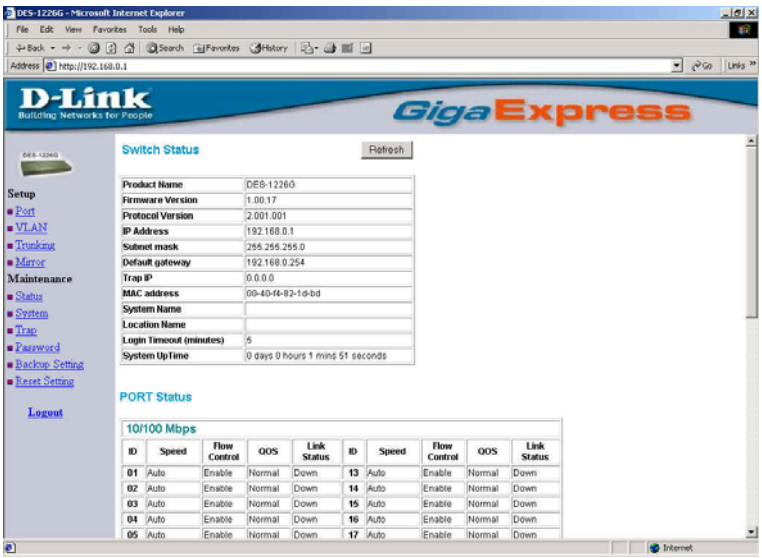


Figure 9. Device Status

Setup Menu

When the main page appears, find the ***Setup menu*** in the left side of the screen (Figure 15). Click on the setup item that you want to configure. There are eleven options: *Port Settings, VLAN Settings, Trunk Setting, Mirror Setting, Device Status, Statistic, System Settings, Trap Setting, Password Setting, Backup Setting, and Reset Setting* as shown in the Main Menu screen.

Figure 10. Setup menu

Configuring Setup Setting

There are four items, including *Port Settings, VLAN Settings, Trunk Settings and Mirror Settings* in Setup menu.

Port Settings

The Port Settings menu page (Figure 11) displays each port's status. Click on the ID parameter to set each port's *Speed, Flow Control, QoS priority, and Link Status*. When you need to renew the posted information, press the "Refresh" button.

The *Link Status* in the screen will show the connection speed and duplex mode. This dialog box will display ***down*** when the port is disconnected.

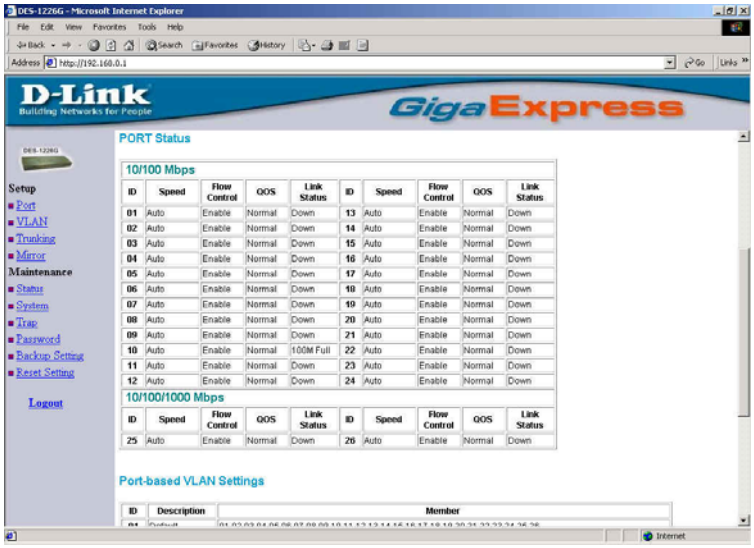


Figure 11. Port Configuration

Note:

1. Be sure to reset the Gigabit port when transferring the media type (Fiber to Copper or Copper to Fiber).

2. The priority of Gigabit Fiber port is higher than Copper.

To change the port setting, click on the ID parameter to enter the selected port to configure its Speed/Disable, Flow control, and QoS settings.

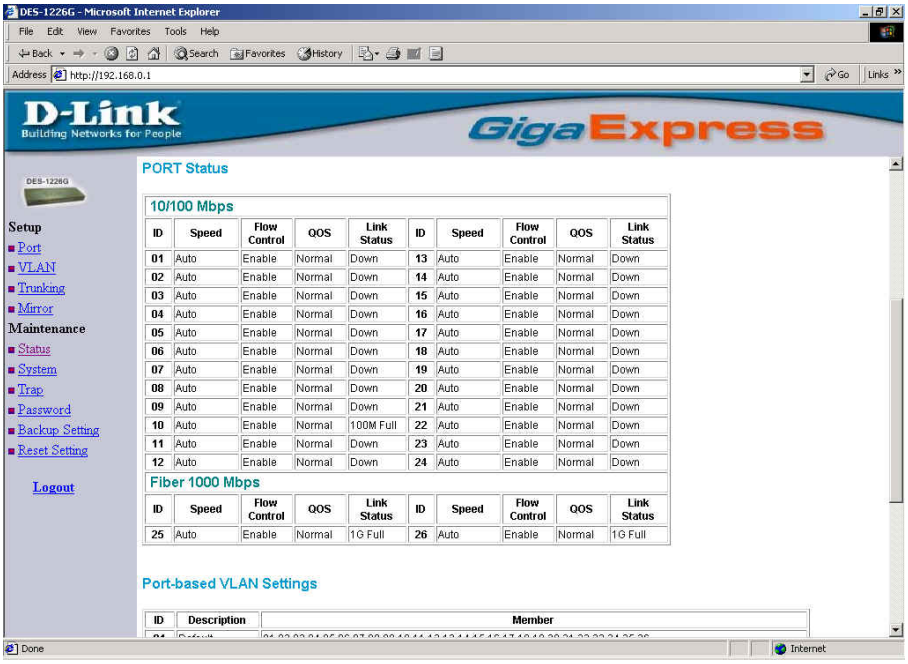


Figure 12.

Speed/Disable:
This setting has six modes—***100M Full***, ***100M Half***, ***10M Full***, ***10M Half***, ***Auto***, ***and Disable***—for speed or port disable selections.

Flow Control:
This setting determines whether or not the Switch will be handling flow control. Set ***FlowCtrl*** to ***Enable*** to avoid data transfer overflow. It is set to ***Disable*** when there is either no flow control or other hardware/software management.

When the port is set to ***forced mode***, the flow control will automatically be set to ***Disable.***

QoS:

In some ports that need to have a high priority to manage the data transfer, QoS should be changed. Set the port's QoS to high to determine that the port will always transfer their data first.

VLAN Settings (Virtual Local Area Network)

Group individual ports into a small "Virtual" network of their own to be independent of the other ports. To add a VLAN group, press the "Add Group" button. The new VLAN configuration window will appear, and you can fill in the description in order to describe this VLAN Group, check on the port to be a member to this VLAN Group, and press the ***"Apply"*** button to execute the setting.

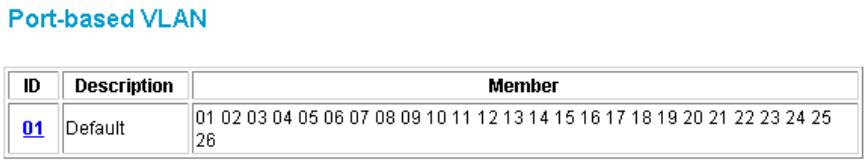


Figure 13. VLAN Group Settings

Once you want to modify the VLAN Group, check on the ID parameter; the ID VLAN configuration window will appear.

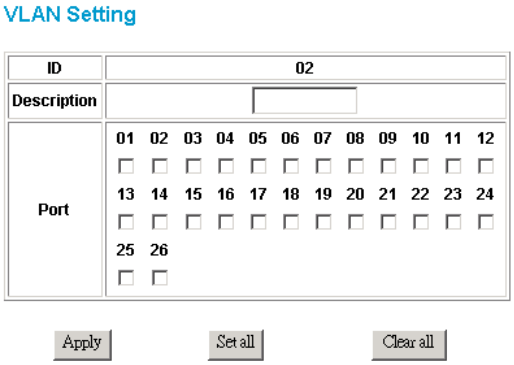


Figure 14. VLAN Settings

Trunk Setting

The Trunk function enables you to cascade two devices with a double times bandwidth (up to 4000Mbps in full-duplex mode).
There are two trunking groups for selection; you can select either or both groups for trunking.

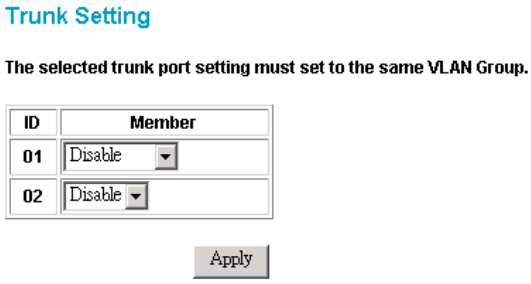


Figure 15. Trunk Settings

Be sure that the selected trunk setting port must connect to the device with a same VLAN group.

Mirror Setting

Port Mirroring is a method of monitoring network traffic that forwards a copy of each incoming and/or outgoing packet from one port of a network switch to another port where the packet can be studied. It enables the manager to keep close track of switch performance and alter it if necessary.

Configuring the port mirroring by assigning a source port from which to copy all packets and a sniffer port where those packets will be sent.

The selection of the sniffer mode is as follows:

TX (transmit) mode: This mode will duplicate the data transmitted from the source port and forward it to the sniffer port.

RX (receive) mode: This mode will duplicate the data sent to the source and forward it to the sniffer port.

Both (transmit and receive) mode: This mode will duplicate both data transmitted from and data sent to the source port, then it will forward it to the sniffer port.

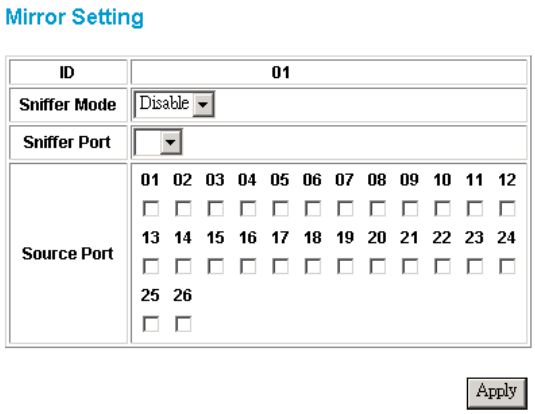


Figure 16.

Device Status

Click on the ***"Status"*** to present the device status on this screen. It will display the System Status, Port Status, VLAN Status, Trunk Status, and Mirror Status.

Press ***"Refresh"*** when you need to renew the posted information.

System Setting

The System Setting includes the System name, Location name, Login Timeout, IP Address, Subnet Mask, and Gateway. Through the Web Management Utility, you can easily recognize the device by using the System Name and the Location Name.

The Login Timeout is to set the idle time-out for security issues. When there is no action when running the Web Smart Utility, and it times out, you must re-login to Web Smart Utility before you set the Utility.

Fill up the IP Address, Subnet Mask, and Gateway for the device.

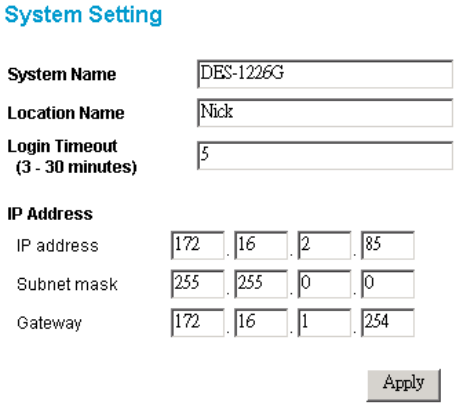


Figure 17.

Trap Setting

The Trap Setting enables the device to monitor the Trap through the Web Management Utility and set the Trap IP Address of the manager where the trap is to be sent.

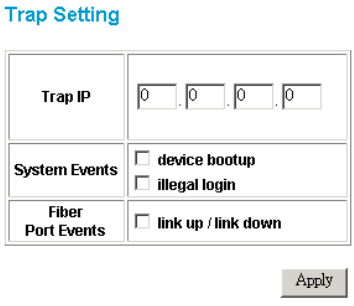


Figure 18. Trap Setting

- **System Events:** Monitoring the system's trap.

  Device Bootup: A trap when booting up the system.

  Illegal Login: A trap when an incorrect password is used to login. It will record the IP address that attempted to login.

- **Fiber Port Events:** Monitors the Fiber port status.

  Link Up/Link Down: A trap displaying a change in link status in the fiber port.

- **Copper Port Events:** Monitors the copper port status.

  Abnormal* Receive Error: A trap displaying a receive data error in the copper port.

  Abnormal* Transmit Error: A trap displaying a transmit data error in the copper port.

  Abnormal*: 50 error packet count within 10 seconds.

Set Password

Password is the invaluable tool used to secure Web Management Switch. Use this function to change the password.
If you forget the password, press the "Reset" button in the rear panel of the Switch. The current settings, including VLAN, Port Setting… etc., will be lost and the Switch will restore to the default setting.

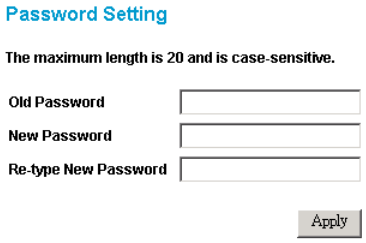


Figure 19. Set Password

Backup Setting

The backup tools help you to backup the current settings of the Switch. To backup your settings, press the ***"Backup"*** button.
To restore a current settings file to the device, you must specify the backup file and click on the ***"Restore"*** button to process the setting of the recorded file.

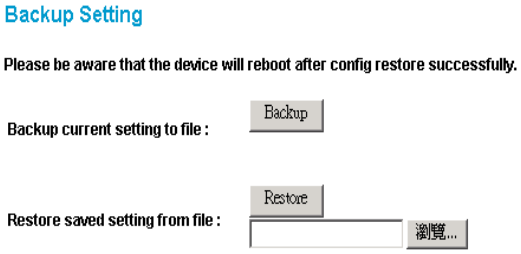

Backup Setting
Please be aware that the device will reboot after config restore successfully.
Backup current setting to file :
Backup
Restore saved setting from file :
Restore
瀏覽...

Figure 20. Backup Setting

Note: when restoring a recorded file, the current password will not be erased.

Reset Setting

The Factory Reset button helps you to reset the device back to the default settings from the factory. Be aware that the entire configuration will be reset; the IP address of the device will be set to default setting of 192.168.0.1.

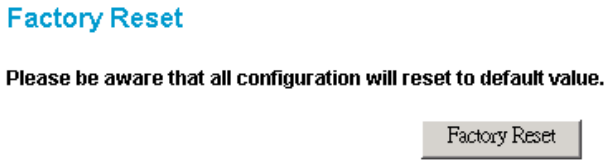


Figure 21. Reset Setting

Logout

When pressing the ***"Logout"*** button, you will be logged out and the Web configuration will return to the first Login page.

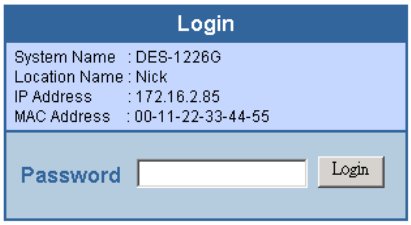


Figure 22. Logout

5. Technical Specifications

General	
Standards	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100 BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3z 1000BASE-SX/LX Gigabit Ethernet
Protocol	CSMA/CD
Data Transfer Rate	Ethernet: 10Mbps (half-duplex), 20Mbps (full-duplex) Fast Ethernet: 100Mbps (half-duplex), 200Mbps (full-duplex) Gigabit Ethernet: 2000Mbps (full-duplex)
Network Cables	10BASET: 2-pair UTP/STP Cat. 3,4,5; up to 100m 100BASE-TX: 2-pair UTP/STP Cat. 5; up to 100m 1000BASE-T: 4-pair UTP/STP Cat. 5; up to 100m (Cat. 5E is recommended) Fiber module: SFP(Mini-GBIC Fiber module
Number of Ports	24 ×10/100BASE-TX Auto-MDIX STP ports 2 × 1000BASE-T Auto-MDIX STP ports 2 × SFP(Mini GBIC) fiber slot
Physical and Environmental	
AC inputs	100 to 240V AC, 50/60 Hz internal universal power supply
Power Consumption	16 watts. (max.)
Temperature	Operating: 0°~40°C, Storage: -10°~70°C
Humidity	Operating: 10%~90%, Storage: 5%~90%
Dimensions	440× 140× 44 mm (W × H × D) 17.32 X 5.51 X 1.73 inches
Emissions	FCC Class A, CE Mark Class A
Safety	CUL
Performance	
Transmits Method	Store-and-forward
RAM Buffer	512K bytes per device
Filtering Address + Table	6K bytes per device
Packet Filtering/ Forwarding Rate	10Mbps Ethernet: 14,880/pps 100Mbps Fast Ethernet: 148,800/pps 1000Mbps Gigabit Ethernet: 1488,000/pps
MAC Address Learning	Automatic update

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Building Networks for People

Limited Warranty
(USA Only)

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

- D-Link or its authorized reseller or distributor and
- Products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, addresses with an APO or FPO.

Limited Warranty: D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type ("Warranty Period"), except as otherwise stated herein.

Limited Lifetime Warranty for the Product(s) is defined as follows:

- Hardware for as long as the original customer/end user owns the product, or five years after product discontinuance, whichever occurs first (excluding power supplies and fans)
- Power Supplies and Fans Three (3) Year
- Spare parts and spare kits Ninety (90) days

D-Link's sole obligation shall be to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund at D-Link's sole discretion. Such repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement Hardware need not be new or have an identical make, model or part. D-Link may in its sole discretion replace the defective Hardware (or any part thereof) with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund at D-Link's sole discretion. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Software will be warranted for the remainder of the original Warranty Period from the date or original retail purchase. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

Non-Applicability of Warranty: The Limited Warranty provided hereunder for hardware and software of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim: The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same.
- The original product owner must obtain a Return Material Authorization ("RMA") number from the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the product (such as a copy of the dated purchase invoice for the product) before the warranty service is provided.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the Product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to **D-Link Systems, Inc., 17595 Mt. Herrmann Fountain Valley, CA 92708-4160**. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer and upon request.

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: This limited warranty provided by D-Link does not cover: Products, if in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. Repair by anyone other than D-Link or an Authorized D-Link Service Office will void this Warranty.

Disclaimer of Other Warranties: EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO NINETY (90) DAYS. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability: TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY

SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY

Governing Law: This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This limited warranty provides specific legal rights and the product owner may also have other rights which vary from state to state.

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CE Mark Warning: This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC Statement: *This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication.*

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warranty Information

(All countries and regions excluding USA)

Wichtige Sicherheitshinweise

1. Bitte lesen Sie sich diese Hinweise sorgfältig durch.
2. Heben Sie diese Anleitung für den spätern Gebrauch auf.
3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Vervenden Sie keine Flüssig- oder Aerosolreiniger. Am besten dient ein angefeuchtetes Tuch zur Reinigung.
4. Um eine Beschädigung des Gerätes zu vermeiden sollten Sie nur Zubehörteile verwenden, die vom Hersteller zugelassen sind.
5. Das Gerät is vor Feuchtigkeit zu schützen.
6. Bei der Aufstellung des Gerätes ist auf sichern Stand zu achten. Ein Kippen oder Fallen könnte Verletzungen hervorrufen. Verwenden Sie nur sichere Standorte und beachten Sie die Aufstellhinweise des Herstellers.
7. Die Belüftungsöffnungen dienen zur Luftzirkulation die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.
8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.
9. Die Netzanschlußsteckdose muß aus Gründen der elektrischen Sicherheit einen Schutzleiterkontakt haben.
10. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollete auch nichts auf der Leitung abgestellt werden.
11. Alle Hinweise und Warnungen die sich am Geräten befinden sind zu beachten.
12. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
13. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. Elektrischen Schlag auslösen.
14. Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von authorisiertem Servicepersonal geöffnet werden.
15. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:
    a. Netzkabel oder Netzstecker sint beschädigt.
    b. Flüssigkeit ist in das Gerät eingedrungen.
    c. Das Gerät war Feuchtigkeit ausgesetzt.
    d. Wenn das Gerät nicht der Bedienungsanleitung ensprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
    e. Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
    f. Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.
16. Bei Reparaturen dürfen nur Orginalersatzteile bzw. den Orginalteilen entsprechende Teile verwendet werden. Der Einsatz von ungeeigneten Ersatzteilen kann eine weitere Beschädigung hervorrufen.
17. Wenden Sie sich mit allen Fragen die Service und Repartur betreffen an Ihren Servicepartner. Somit stellen Sie die Betriebssicherheit des Gerätes sicher.
18. Zum Netzanschluß dieses Gerätes ist eine geprüfte Leitung zu verwenden, Für einen Nennstrom bis 6A und einem Gerätegewicht größer 3kg ist eine Leitung nicht leichter als H05VV-F, 3G, 0.75mm2 einzusetzen.

WARRANTIES EXCLUSIVE

IF THE D-LINK PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT D-LINK'S OPTION, REPAIR OR REPLACEMENT. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. D-LINK NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION MAINTENANCE OR USE OF D-LINK'S PRODUCTS.
D-LINK SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY THE CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING OR OTHER HAZARD.

LIMITATION OF LIABILITY

IN NO EVENT WILL D-LINK BE LIABLE FOR ANY DAMAGES, INCLUDING LOSS OF DATA, LOSS OF PROFITS, COST OF COVER OR OTHER INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES ARISING OUT THE INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE OR INTERRUPTION OF A D- LINK PRODUCT, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY. THIS LIMITATION WILL APPLY EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
IF YOU PURCHASED A D-LINK PRODUCT IN THE UNITED STATES, SOME STATES DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

Limited Warranty

Hardware:

D-Link warrants each of its hardware products to be free from defects in workmanship and materials under normal use and service for a period commencing on the date of purchase from D-Link or its Authorized Reseller and extending for the length of time stipulated by the Authorized Reseller or D-Link Branch Office nearest to the place of purchase.

If the product proves defective within the applicable warranty period, D-Link will provide repair or replacement of the product. D-Link shall have the sole discretion whether to repair or replace, and replacement product may be new or reconditioned. Replacement product shall be of equivalent or better specifications, relative to the defective product, but need not be identical. Any product or part repaired by D-Link pursuant to this warranty shall have a warranty period of not less than 90 days, from date of such repair, irrespective of any earlier expiration of original warranty period. When D-Link provides replacement, then the defective product becomes the property of D-Link.

After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. The package must be mailed or otherwise shipped to D-Link with all costs of mailing/shipping/insurance prepaid. D-Link shall never be responsible for any software, firmware, information, or memory data of Purchaser contained in, stored on, or integrated with any product returned to D-Link pursuant to this warranty.

Any package returned to D-Link without an RMA number will be rejected and shipped back to Purchaser at Purchaser's expense, and D-Link reserves the right in such a case to levy a reasonable handling charge in addition mailing or shipping costs.

Software:

D-Link warrants that its software products will perform in substantial conformance with the applicable product documentation provided by D-Link with such software product, for a period of ninety (90) days from the date of purchase from D-Link or its Authorized Reseller. D-Link warrants the magnetic media, on which D-Link provides its software product, against failure during the same warranty period. This warranty applies to purchased software, and to replacement software provided by D-Link pursuant to this warranty, but shall not apply to any update or replacement which may be provided for download via the Internet, or to any update which may otherwise be provided free of charge.

D-Link's sole obligation under this software warranty shall be to replace any defective software product with product which substantially conforms to D-Link's applicable product documentation. Purchaser assumes responsibility for the selection of appropriate application and system/platform software and associated reference materials. D-Link makes no warranty that its software products will work in combination with any hardware, or any application or system/platform software product provided by any third party, excepting only such products as are expressly represented, in D-Link's applicable product documentation as being compatible. D-Link's obligation under this warranty shall be a reasonable effort to provide compatibility, but D-Link shall have no obligation to provide compatibility when there is fault in the third-party hardware or software. D-Link makes no warranty that operation of its software products will be uninterrupted or absolutely error-free, and no warranty that all defects in the software product, within or without the scope of D-Link's applicable product documentation, will be corrected.

Registration

Register your product on-line at:

http://support.dlink.com/register

Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.

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Limited Warranty
(USA Only)

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

Limited Warranty: D-Link warrants that the hardware portion of the D-Link product described below ("Hardware") will be free from material defects in workmanship and materials under normal use from the date of original retail purchase of the product, for the period set forth below ("Warranty Period"), except as otherwise stated herein.

- Hardware (excluding power supplies and fans): One (1) year
- Power supplies and fans: One (1) year
- Spare parts and spare kits: Ninety (90) days

The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Software Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund the portion of the actual purchase price paid that is attributable to the Software. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

Non-Applicability of Warranty: The Limited Warranty provided hereunder for Hardware and Software portions of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim: The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at https://rma.dlink.com/.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to **D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708**. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer.

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: The Limited Warranty provided herein by D-Link does not cover: Products that, in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; and Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. While necessary maintenance or repairs on your Product can be performed by any company, we recommend that you use only an Authorized D-Link Service Office. Improper or incorrectly performed maintenance or repair voids this Limited Warranty.

Disclaimer of Other Warranties: EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO THE DURATION OF THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability: TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

Governing Law: This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This Limited Warranty provides specific legal rights and you may also have other rights which vary from state to state.

Trademarks: D-Link is a registered trademark of D-Link Systems, Inc. Other trademarks or registered trademarks are the property of their respective owners.

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CE Mark Warning: This is a Class A product. In a residential environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC Statement: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. Operation of this equipment in a residential environment is likely to cause harmful interference to radio or television reception. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures**:**

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

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Registration Card (Excluding USA)

Print, type or use block letters.

Your name: Mr./Ms_____
Organization: _____Dept._____
Your title at organization:_____ Telephone:_____ Fax:_____
Organization's full address:_____
Country:_____
Date of purchase (Month/Day/Year):_____

Product Model	Product Serial No.	* Product installed in type of computer (e.g., Compaq 486)	* Product installed in computer serial No.

(* Applies to adapters only)
Product was purchased from:
Reseller's name:_____
Telephone:_____ Fax:_____
Reseller's full address:_____
_____

Answers to the following questions help us to support your product:

1. Where and how will the product primarily be used?
☐Home ☐Office ☐Travel ☐Company Business ☐Home Business ☐Personal Use

2. How many employees work at installation site?
☐1 employee ☐2-9 ☐10-49 ☐50-99 ☐100-499 ☐500-999 ☐1000 or more

3. What network protocol(s) does your organization use ?
☐XNS/IPX ☐TCP/IP ☐DECnet ☐Others_____

4. What network operating system(s) does your organization use ?
☐D-Link LANsmart ☐Novell NetWare ☐NetWare Lite ☐SCO Unix/Xenix ☐PC NFS ☐3Com 3+Open
☐Banyan Vines ☐DECnet Pathwork ☐Windows NT ☐Windows 2000 ☐Windows XP
☐Others_____

5. What network management program does your organization use ?
☐D-View ☐HP OpenView/Windows ☐HP OpenView/Unix ☐SunNet Manager ☐Novell NMS
☐NetView 6000 ☐Others_____

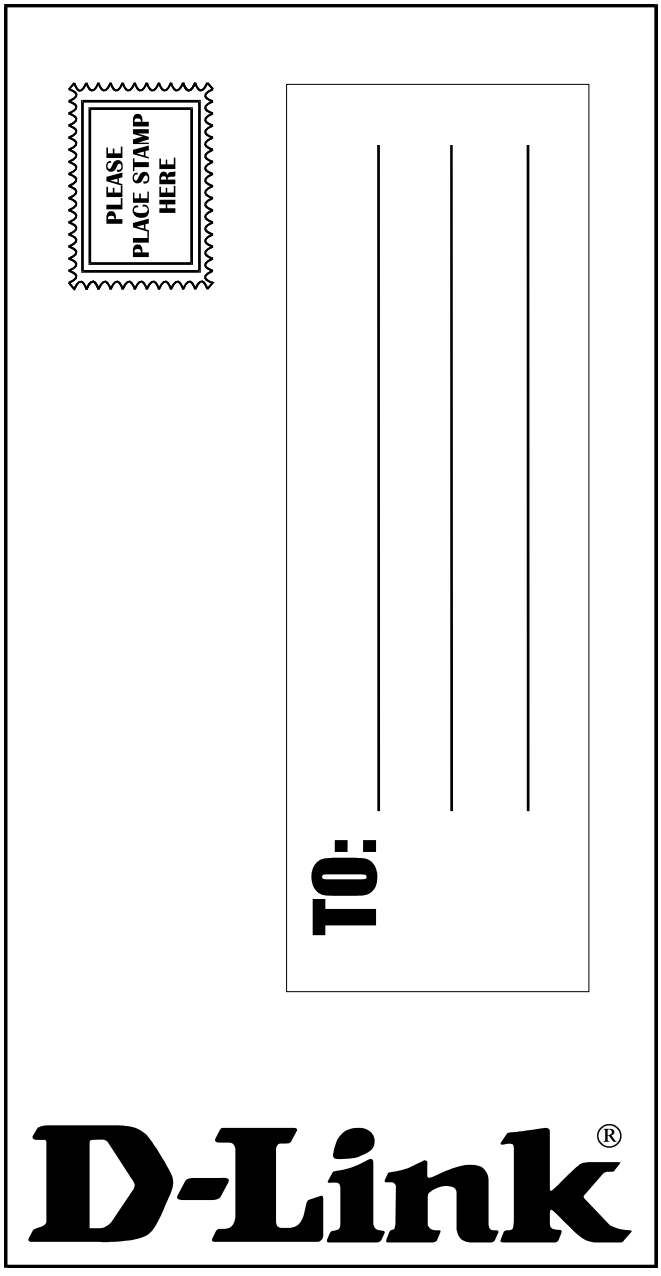
6. What network medium/media does your organization use ?
☐Fiber-optics ☐Thick coax Ethernet ☐Thin coax Ethernet ☐10BASE-T UTP/STP
☐100BASE-TX ☐100BASE-T4 ☐100VGAnyLAN ☐Others_____

7. What applications are used on your network?
☐Desktop publishing ☐Spreadsheet ☐Word processing ☐CAD/CAM ☐Database management ☐Accounting
☐Others_____

8. What category best describes your company?
☐Aerospace ☐Engineering ☐Education ☐Finance ☐Hospital ☐Legal ☐Insurance/Real Estate ☐Manufacturing ☐Retail/Chainstore/Wholesale
☐Government ☐Transportation/Utilities/Communication ☐VAR ☐System house/company
☐Other_____

9. Would you recommend your D-Link product to a friend?
☐Yes ☐No ☐Don't know yet

10.Your comments on this product? _____
_____
_____
_____


PLEASE
PLACE STAMP
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TO:
D-Link®